

ORIGINAL INTERVENTION

RECEIVED BEFORE THE ARIZONA CORPORATION COMMISSION

COMMISSIONERS

KRISTIN K. MAYES, Chairman GARY PIERCE PAUL NEWMAN SANDRA D. KENNEDY BOB STUMP

IN THE MATTER OF THE APPLICATION OF ARIZONA PUBLIC SERVICE COMPANY FOR APPROVAL OF ITS 2010 RENEWABLE ENERGY STANDARD IMPLEMENTATION PLAN AND DISTRIBUTED ENERGY ADMINISTRATIVE PLAN AND REQUEST FOR RESET OF RENEWABLE ENERGY ADJUSTOR 2009 DEC -4 ₱ 2:30

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INFINIA CORPORATION REQUEST FOR PARTICIPATION OF INFINIA SOLAR TECHNOLOGY IN THE DE AND OTHER "PV" RENEWABLE ENERGY PROGRAMS

With this filing Infinia Corporation, a US-based solar energy technology manufacturer and supplier, requests Commission approval for Infinia's solar electric generating technology to be included in the definition of Distributed Energy ("DE") technologies eligible for incentives in the Arizona Public Service (and Tucson Electric) programs. Infinia also requests to be included as an eligible technology for the Community Solar Pilot – Flagstaff and the proposed AZ Sun program.

APS inappropriately restricts the eligible solar electric technology for the DE Program to PV
In the Commission decision creating the Renewable Energy Standard (RES) plan, Decision
#69127, the Commission defined "Distributed Renewable Energy Resources" as

applications of the following defined technologies that are located at a customer's
premises and that displace Conventional Energy Resources that would otherwise be used
to provide electricity to Arizona customers:

1. "Biogas Electricity Generator," "Biomass Electricity Generator," "Geothermal Generator," "Fuel Cells that Use Only Renewable Fuels," "New Hydropower Generator of 10 MW or Less," or "Solar Electricity Resources," as each of those terms is defined in subsections (A)(I), (A)(2), (A)(5), (A)(6), (A)(9), and (A)(10). (Commission Decision #69127, Appendix A, p 4, emphasis added)

Further, <u>"Solar Electricity Resources"</u> are listed as an "Eligible Renewable Energy Resource" and are defined as technology that:

use sunlight to produce electricity by either photovoltaic devices or solar thermal electric resources. (IBID, p 5-7)

In its implementation of the Commission Decision, APS has inappropriately limited the scope of eligible DE solar technologies to "PV" as expressed in the APS' updated Distributed Energy Administration Plan filed in this Docket:

The following DE technologies are eligible for incentives:

- Biogas Electricity Generator, Biomass Electricity Generator
- Grid-tied and Off-grid Solar Photovoltaic Generators ("PV")
- Biomass thermal Systems and Biogas Thermal Systems
- ...

(2010 Implementation Plan, Attachment B, page 2 of 23, emphasis added)

To be compliant with the Commission definition, the eligible solar technology line should be written as <u>"Grid-tied and Off-grid Solar Electricity Generators"</u>. Because Solar Thermal Electric generators like solar trough and solar tower are usually only economically viable in large 100s of MW installations, APS has begun using "PV" to mean the smaller, distributed solar electric generation projects. While this may have represented the conditions of the past, it is no longer the case. Specifying "PV" is overly restricted for the eligible DE technologies and is not consistent with the Commission definitions.

Infinia Corporation produces a high-efficiency, solar electric module, the Infinia Solar System (ISS), which produces 3 kW(ac) rated output, is commercially available, and is well suited for DE applications. The ISS, a concentrator dish-Stirling technology, is based on Infinia's 25 year history of producing Stirling engine technology for a variety of military, governmental, and commercial markets. The ISS is a solar thermal electric generating technology. The ISS should appropriately be included in the DE technologies eligible for APS incentives. The modular nature of the ISS enables projects from kW-scale to 100s of MW-scale.

APS agrees that the Infinia Solar System (ISS) should be included as an eligible DE technology With multiple customers and project developers considering the use of the ISS technology in APS DE programs, Infinia has had the opportunity to discuss the technology and its DE application with APS. In March 2009, the APS DE Program Manager provided Infinia with a letter that states that the ISS is eligible for the same DE incentives as "listed under the Photovoltaic Systems Grid-Tied systems." In November 2009, APS confirmed the Reservation for incentives in the DE Renewable Energy Incentive Program for a 1MW installation using the Infinia ISS. (Email and Letter attached as Exhibit A).

The ISS should be included in all APS programs and proposed programs where PV is eligible

The high efficiency, modular characteristics of the ISS enables performance in many of the same applications where PV can be deployed, especially for multi-kW ground-mount applications. Consequently, the ISS should be included as an eligible technology for the Community Solar Pilot – Flagstaff as well as the AZ SUN program proposed by APS.

The Commission should direct APS to make its solar program language consistent with Decision # 69127 language

The use of a specific technology, photovoltaic (PV), has been used loosely to mean DE solar technology and solar thermal electric (STE) technology to mean utility-scale solar. The Commission should direct APS to make its language for the DE, wholesale DE, and utility-scale wholesale programs consistent with the definition language in the Commission Decision # 69127 and be open to any solar electricity resources that otherwise meet the program requirements. Solar electricity technologies will continue to change and evolve. The broader DE, wholesale DE, and renewable resources definitions in the Commission's Decision #69127 allows evolving and new solar electric technologies to find their own economic niches rather than presupposing the technology type, PV or STE, that may emerge as the dominant type for a specific application. For current and future programs, APS should describe the characteristics desired or required and leave open the solar electricity technology that will meet the requirements. Customers and developers will select the technologies that meet their needs and the program requirements in these markets.

Infinia acknowledges the very good work that this Commission and APS have done in implementing the AZ RES program. Our comments in this filing address APS incentive program language because this is the open Docket. However, our comments in this Docket also apply to the programs established by other electric utilities under the ACC jurisdiction. Language in their programs should not pre-suppose a solar technology but rather follow the more open definitions in the ACC's Commission Decision #16127. Infinia desires to actively participate in the APS (and other Arizona utility's) renewable incentive programs in ways that enhance and promote a successful solar renewable energy program in Arizona.

Respectively Submitted on December 3, 2009, /s/ David L Townley

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Original and 13 copies mailed December 3, 2009 to
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Copy of Foregoing transmitted by email on December 3, 2009 to:
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EXHIBIT A

LETTERS/EMAILS FROM APS CONFIRMING ISS PARTICIPATION IN THE DE RENEWABLE ENERGY PROGRAM

Subject: Sterling Dishes

Date:Fri, 13 Mar 2009 09:38:09 -0700

From: Tony. Tewelis@aps.com

To:slevine@encapdevelopment.com

Steve:

Just to confirm our earlier discussions, if -- company-- installs Stirling dishes in a distributed energy manner under APS's Renewable Energy Incentive Program, the eligible REC rate would be the same as the rates listed under the Photovoltaic Systems Grid-Tied systems. The attached PDF lists all of our current offerings.

Please let me know if you have any questions. Thanks!!!

Tony'

Tony J. Tewelis Renewable Energy Planning and Regulatory *Arizona Public Service* 400 North 5th Street Phoenix, AZ 85004

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November 30, 2009

Mr. --Name---- Comapny -P.O. Box ----Clarkdale, AZ 86324

RE: APS Renewable Energy Incentive Program Reservation #8668

Dear Mr. -- Name --

Congratulations!!! We are pleased to confirm your reservation has been conditionally approved. In order to fulfill the program requirements, your installing contractor must hold a valid K-11 or L-11 license. To date, the license listed is a B-01. Once approved, this conditional status will be removed.

Please keep in mind that this letter is a confirmation of reserved funding, not an approval for interconnection. An interconnection application, along with all required diagrams, will need to be submitted and the project will be subject to the interconnection approval process. A copy of APS's Interconnection Requirements can be found at http://www.aps.com/main/green/choice/choice_79.html. It is strongly recommended that no equipment be ordered or installed until preliminary approval of the interconnection application is granted by APS. Should you have additional questions regarding the interconnection process, you can contact the distribution interconnection group at interconnectpbi@apsc.com or by calling 602-371-6160.

The next step in the process will be to review and execute the enclosed Credit Purchase Agreement (CPA). This standard agreement must be executed and returned within 60 days of the date of this letter in order to remain eligible for reserved incentive funding. If the CPA is not executed and returned within the 60 day timeframe, the reservation will be cancelled, and the funds will be released back to the general fund.

Please review and sign both copies. Retain one copy for your records, and return the other copy to the address listed below:

APS Renewable Energy Incentive Program Mail Station 9649 PO Box 53999 Phoenix AZ 85072-3999

Your APS Renewable Energy Incentive Program Representative for this project is Deborah Sapp, who will be contacting you within the next couple weeks to discuss your project. In the meantime, if you have any questions, you can reach Deborah at ((602) 250-3465) or Deborah.Sapp@aps.com. Thank you for your interest in renewable energy.

Sincerely,

Tony J. Tewelis

Sony J. Tewels

APS Renewable Energy

(602) 250-3829

tony.tewelis@aps.com

cc:

Patti Diaz

Deborah Sapp Rick Welch Gerhard Mayer

APS APS APS

MGL Development, LLC